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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/650,153  
Filing Date: August 26, 2003  
Appellant(s): COLLINS ET AL.

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Lawrence A. Baratta, Reg. No.: 59553  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed June 20, 2011 appealing from the Office action mailed June 17, 2011.

**(1) Real Party in Interest**

The Examiner has no comment on the statement, or lack of statement, identifying by name the real party in interest in the brief.

**(2) Related Appeals and Interferences**

The Examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The following is a list of claims that are rejected and pending in the application:

Pending: Claims 1, 5, 6, 8, 11, and 19-29 are pending

Rejected: Claims 1, 5, 6, 8, 11, and 19-29 are rejected

Canceled: Claims 2-4, 7, 9, 12-18, and 30-33 have been previously canceled.

Objected to: None

Withdrawn: None

Appealed: Claims 1, 5, 6, 8, 11, and 19-29.

**(4) Status of Amendments After Final**

The Examiner has no comment on the appellant's statement of the status of amendments after final rejection contained in the brief.

**(5) Summary of Claimed Subject Matter**

The Examiner has no comment on the summary of claimed subject matter contained in the brief.

**(6) Grounds of Rejection to be Reviewed on Appeal**

**WITHDRAWN REJECTIONS**

The following grounds of rejection are not presented for review on appeal because they have been withdrawn by the Examiner.

Claims 1, 5-6, 8, 11, and 19-29 are rejected under 35 U.S.C. §101 because the claimed invention is directed to non-statutory subject matter

**(7) Claims Appendix**

The Examiner has no comment on the copy of the appealed claims contained in the Appendix to the appellant's brief.

**(8) Evidence Relied Upon**

6,223,166 B1	KAY	4-2001
6,226,619 B1	HALPERIN et al	5-2001
6,069,955	COPPERSMITH et al	5-2000

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

***Claim Rejections - 35 USC § 101***

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. **Claims 1, 5-6, 8, 11, and 19-29**, are rejected under 35 U.S.C. §101 because the claimed invention is directed to non-statutory subject matter.

Based on Supreme Court precedent<sup>1</sup> and recent Federal Circuit decisions, § 101 process must (1) be tied to another statutory class (such as a particular apparatus) or (2) transform underlying subject matter (such as an article or materials) to a different state or thing.<sup>2</sup> If neither of these requirements is met by the claim(s), the method is not a patent eligible process under 35 U.S.C. § 101. In addition, the tie to a particular apparatus, for example, cannot be mere extra-solution activity. See *In re Bilski*, 88 USPQ2d 1385 (Fed. Cir. 2008).

An example of a method claim that would not qualify as a statutory process would be a claim that recited purely mental steps.

To meet prong (1), the method step should positively recite the other statutory class (the thing or product) to which it is tied. This may be accomplished by having the claim positively recite the machine that accomplishes the method steps. Alternatively or to meet prong (2), the method step should positively recite identifying the material that is

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<sup>1</sup> *Diamond v. Diehr*, 450 U.S. 175, 184 (1981); *Parker v. Flook*, 437 U.S. 584, 588 n.9 (1978); *Gottschalk v. Benson*, 409 U.S. 63, 70 (1972); *Cochrane v. Deener*, 94 U.S. 780, 787-88 (1876).

<sup>2</sup> The Supreme Court recognized that this test is not necessarily fixed or permanent and may evolve with technological advances. *Gottschalk v. Benson*, 409 U.S. 63, 71 (1972).

being changed to a different state or positively recite the subject matter that is being transformed.

In this particular case, claims 1, 5-6, 8, 11, and 19-33 fails both prong (1) because the "tie" (e.g. obtaining by radio means, electronically reading, utilizing and determining ) is representative of extra-solution activity and/or not tied to any particular machine or apparatus. Additionally, the claim(s) fail prong (2) because the method steps do not transform the underlying subject matter to a different state or thing. Accordingly these claims are directed to non-statutory subject matter.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 1, 5-6, 8, 11, 19-25, and 27-28**, are rejected under 35 U.S.C. 103(a) as being unpatentable over Kay U.S. Patent No. 6,223,166 B1 in view of Halperin et al U.S. Patent No. 6,226,619

5. As per **claims 1 and 11**, Kay discloses a method for determining if an item is a fraudulent item, the method comprising the steps of:

obtaining a first number associated with the item or item's packaging (*see col. 4, lines 40-60, which discloses asymmetric key stored in memory 40 and assigned by the seller to the event...*);

electronically reading a second number printed on the item or packaging of the item (*see col. 4, lines 40-60, which discloses scanning a ticket 31 including a bar code 33 representing cypher code definitive of the ticket information in an asymmetric cryptographic system see col. 4, lines 15-25, which discloses a digital signature may be included in the ticket. The digital signature is created by the seller recording a message in the ticket using his private key*);

utilizing a public-key cryptographic process and contents of the RFID tag to cryptographically decide whether the second number is a public key signature of the first number (*col. 4, lines 40-60, which discloses that a processor 39 receives an output from the receiver 37 and checks the bar code against an asymmetric key stored in a memory 40 and assigned to the event by the seller. Using an asymmetric key assigned by the seller to the event, the bar code is decoded and compared against an event description stored in the memory 40*);  
and

determining authenticity of the item based on the result of the decision (*col. 4, lines 40-60, which discloses that the bar code is decoded and compared against an event description stored in the memory 40*).

*If the event description and decoded cypher code compare, the ticket is authenticated and the holder is granted admission to the event. If the event description and the decoded cypher code do not compare, the ticket holder is denied admission to the event)*

6. What Kay does not explicitly disclose is obtaining the first number by radio means from an RFID tag.

7. Halperin discloses the method comprising obtaining the first number by radio means from an RFID tag (*fig. 1; col. 4, lines 30-40, which discloses that "the customer verify ... that the encrypted number carried by the tag corresponds to the unique serial number ", col. 7, lines 10-15, which discloses that "a unique signature is provided by the tag"; see col. 5, lines 51-63; col. 7, line 65-col. 8, line 10)*

Accordingly it would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to modify the method of Kay and incorporate a method comprising obtaining the first number by radio means from an RFID tag as a substitute for the memory device of Kay since both are memory devices for storing and reading information in view of the teachings of Halperin in order to ensure adequate security of the item by ensuring authenticity of the product



8. As per **claim 5**, Kay further discloses the method wherein the step of determining the item's authenticity comprises associating the item with an authentic item if the signature is verified, otherwise associating the item with a forged item (col. 4, lines 40-65).

9. As per **claims 6**, Kay further discloses a method of manufacturing a product in order to prevent forgery, the method comprising the steps of:

programming an anti-forgery RFID tag pre-programmed with an unalterable first number with a second number, the unalterable first number probabilistically rarely the same number as unalterable first numbers in other anti-forgery RFID tags;

determining a third number that is a cryptographic signature over the first and second numbers (*see col. 4, lines 15-25, which discloses a digital signature may be included in the ticket. The digital signature is created by the seller recording a message in the ticket using his private key*);

affixing the anti-forgery RFID tag comprising first and second numbers to either the product or the packaging associated with the product; and

affixing the third number to either the product or the packaging associated with the product to either the product or the packaging associated with the product.

10. What Kay does not explicitly disclose is:

programming an anti-forgery RFID tag pre-programmed with an unalterable first number with a second number, the unalterable first number probabilistically rarely the same number as unalterable first numbers in other anti-forgery RFID tags

11. Halperin discloses the method comprising:

programming an anti-forgery RFID tag pre-programmed with an unalterable first number with a second number, the unalterable first number probabilistically rarely the same number as unalterable first numbers in other anti-forgery RFID tags (small tag 2, figs. 1 and 2 comprising a first number (*fig. 1; col. 4, lines 5-15, which discloses that "a tag is used that is preferably unique...that cannot be duplicated; col. 5, lines 55-65, which discloses "...number read from the tag ..."*);

affixing the anti-forgery RFID tag comprising first and second numbers to either the product or the packaging associated with the product (figs. 1, 5 and 6); and

affixing the third number to either the product or the packaging associated with the product to either the product or the packaging associated with the product (fig. 1, 5 and 6).

Accordingly it would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to modify the method of Kay and incorporate a method comprising programming an anti-forgery RFID tag pre-programmed with an unalterable first number with a second number, the unalterable first number probabilistically rarely the same number as unalterable first numbers in other anti-forgery RFID tags; affixing the anti-forgery RFID tag comprising first and second numbers to either the product or

the packaging associated with the product; and affixing the third number to either the product or the packaging associated with the product to either the product or the packaging associated with the product in view of the teachings of Halperin in order to ensure adequate security and portability.

**12.** As per **claim 8**, Kay further discloses the method wherein the step of affixing the second number to either the product or the packaging associated with the product comprises the step of printing a cryptographic signature on the product or the product's packaging (see col. 4, lines 40-60)

**13.** As per **claims 19 and 20**, Kay further discloses the method wherein a bar-code is used for rendering the second number that is printed on the item or item's packaging (see col. 4, lines 30-40)

**14.** As per **claim 21**, Kay discloses a method for determining if an item is a fraudulent item, the method comprising the steps of:

obtaining a first and second number from an RFID tag, wherein the first number is unalterable and unique or semi-unique and the second number is associated with the item (*see col. 4, lines 40-60, which discloses asymmetric key stored in memory 40 and assigned by the seller to the event...*);

electronically reading a third number (*see col. 4, lines 40-60, which discloses scanning a ticket 31 including a bar code 33*

*representing cypher code definitive of the ticket information in an asymmetric cryptographic system; col. 4, lines 40-60, which discloses that a processor 39 receives an output from the receiver 37 and checks the bar code against an asymmetric key stored in a memory 40 and assigned to the event by the seller. Using an asymmetric key assigned by the seller to the event, the bar code is decoded and compared against an event description stored in the memory 40; see col. 4, line 60 - col. 5, line 15););*

*utilizing a public-key cryptographic process and the first and second numbers to cryptographically decide whether the third number is a public-key signature of a combination of the first and second numbers (see col. 4, lines 15-25, which discloses a digital signature may be included in the ticket. The digital signature is created by the seller recording a message in the ticket using his private key); and*

*determining the authenticity of the item based on the result of the decision (col. 4, lines 40-60, which discloses that the bar code is decoded and compared against an event description stored in the memory 40. If the event description and decoded cypher code compare, the ticket is authenticated and the holder is granted admission to the event. If the event description and the decoded cypher code*

*do not compare, the ticket holder is denied admission to the event)*

15. What Kay does not explicitly disclose is obtaining by radio means the the first number and the second number from RFID tag.

16. Halperin discloses the method comprising obtaining by radio means the the first number and the second number from RFID tag (*fig. 1; col. 2, lines 50-55, which discloses that "the item includes indicia ... for comparism with a secret ... designating authenticity"; col. 4, lines 30-40, which discloses that "the customer verify ... that the encrypted number carried by the tag corresponds to the unique serial number ", col. 7, lines 10-15, which discloses that "a unique signature is provided by the tag"; col. 7, line 65-col. 8, line 10)*

Accordingly it would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to modify the method of Kay and incorporate a method comprising the RFID tag as a substitute for the memory device since both are memory devices for storing and reading information in view of the teachings of Halperin in order to ensure adequate security of the item by ensuring authenticity of the product

17. As per claim 22, Kay failed to explicitly disclose the method further comprising the step of: electronically determining whether the RFID is an anti-forgery RFID tag

Halperin further discloses the method further comprising the step of:  
electronically determining whether the RFID is an anti-forgery RFID tag (see fig. 1).

Accordingly it would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to modify the method of Kay and incorporate a method comprising the RFID tag as a substitute for the memory device since both are memory devices for storing and reading information in view of the teachings of Halperin in order to ensure adequate security of the item by ensuring authenticity of the product

**18.** As per **claim 23**, Kay failed to explicitly disclose the method, further comprising electronically determining whether a specific physical feature or a behavioral feature matches that of an anti-forgery RFID tag

Halperin further discloses the method, further comprising electronically determining whether a specific physical feature or a behavioral feature matches that of an anti-forgery RFID tag (col. 7, line 65-col. 8, line 10)

Accordingly it would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to modify the method of Kay and incorporate a method comprising the RFID tag as a substitute for the memory device since both are memory devices for storing and reading information in view of the teachings of Halperin in order to ensure adequate security of the item by ensuring authenticity of the product

**19.** As per **claims 24 and 28**, Kay further discloses the method further comprising the step of: verifying that the second number is associated with the item (see col. 4, lines 40-60).

**20.** As per **claim 25**, Kay further discloses the method, wherein the verification is performed electronically using an optical scanner (see col. 4, lines 40-60).

**21.** As per **claim 27**, Kay further discloses the method, wherein the reading is performed by a bar code scanner (see col. 4, lines 40-60).

**22.** **Claims 26, and 29** are rejected under 35 U.S.C. 103(a) as being unpatentable over Kay U.S. Patent No. 6,223,166 B1 in view of Halperin et al U.S. Patent No. 6,226,619 as applied to claim 21 above, and further in view of Coppersmith et al (hereinafter "Coppersmith") U.S. Patent No. 6,069,955

**23.** As per **claim 26**, Kay and Halperin failed to explicitly disclose the method further comprising the step of:

electronically determining whether the second number is an Electronic Product Code (EPC) of the item.

Coppersmith discloses the method further comprising the step of:

electronically determining whether the second number is an Electronic Product Code (EPC) of the item (see fig. 2).

Accordingly it would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to modify the method of Kay and incorporate a method further comprising the step of: electronically determining whether the second number is an Electronic Product Code (EPC) of the item in view of the teachings of Coppersmith in order to ensure proper identification of the product.

**24.** As per claim 29, Kay and Halperin failed to explicitly disclose a method, wherein:

a third number is obtained from the RFID tag when the first number is obtained, 'the third number is concatenated with, but a separate number than, the first number, the third number includes product information of the item, the public-key cryptographic process is used with the first and third numbers, and only if the public-key cryptographic process cryptographically decides that the second number is a public-key signature of the first and third numbers is the product determined to be authentic.

Coppersmith discloses:

a third number is obtained from the RFID tag when the first number is obtained, 'the third number is concatenated with, but a separate number than, the first number, the third number includes product information of the item, the public-key cryptographic process is used with the first and third numbers, and only if the public-key cryptographic process cryptographically decides that the second number is a public-key signature of the first and third numbers is the product determined to be authentic (see fig. 1; see claim 1).



Accordingly it would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to modify the method of Kay and incorporate a method further comprising a third number is obtained from the RFID tag when the first number is obtained, 'the third number is concatenated with, but a separate number than, the first number, the third number includes product information of the item, the public-key cryptographic process is used with the first and third numbers, and only if the public-key cryptographic process cryptographically decides that the second number is a public-key signature of the first and third numbers is the product determined to be authentic in view of the teachings of Coppersmith in order to ensure security of the item.

#### **(10) Response to Argument**

With respect to the rejection of claims 1, 6, 11, and 21 Appellant argues that Examiner is in error in holding these claims and their associated dependent claims as being directed to non-statutory subject matter, because each of the claims explicitly passes the Machine-or-Transformation Test. In particular claim 1 recites radio means and an RFID tag associated with an item. Claim 6 recites an anti-forgery RFID tag and the product or packaging to which the anti-forgery RFID tag is affixed. Claim 11 recites an RFID tag affixed to an item and Claim 21 recites an RFID tag and an item. Therefore the rejection is in error because each of these independent claims are tied to an RFID tag and an associated item

In response, Examiner respectfully disagrees and submits that (1) the "obtaining by radio means" and "electronically reading" steps are "data gathering" (as described in the 101 guidelines) (2) Additionally Applicant's specification show for example, page 6

describes the RF tag reader or "radio means" as a technology that is known in the art (page 6, lines 30-32). Similarly, the reading step is performed by "well-known bar code scanning circuitry" (page 7, lines 1-3). Hence, these steps are by definition, extra-solution as they were known in the art. The "utilizing" step is also, known in the art- (see Applicant's Spec. page 4, lines 6-22). Hence, Applicant's "contribution" is the Application of cryptographic signatures, scanners and readers to determine the authenticity of an item. However, as Applicants' claim 1, does not include a machine to perform this step- "determining authenticity of the item based on the result of the decision"- the claim is properly rejected as being non-statutory.

With respect to independent claims 1 and 11, Appellant concedes that Kay teaches the cipher code in col. 4, lines 40-60 which is equivalent to Appellant's first number. Appellant further concedes that Kay teaches the digital signature in col. 4, lines 15-25, which is equivalent to Appellants second number. Appellant however argues that a thorough reading of Kay shows Kay does not obtain the cipher code and the digital signature in separate steps as claimed by Appellant's independent claims 1 and 11. That rather Kay merely teaches a single step to obtain the ticket information through scanning the ticket.

In response Examiner respectfully disagrees with Applicant's misinterpretation of Kay for the following reasons: The first number is an asymmetric key stored in portable memory 40 and assigned to the event by the seller (see col. 4, lines 40-60). This number is equivalent to the number obtained by radio means from the RFID tag. An RFID tag is a portable memory storing Appellant's first number and associated with the

items packaging. Similarly the asymmetric key assigned by the seller is obtained from a portable memory 40. The second number is obtained by scanning the ticket (col. 4, lines 40-60). The bar code or cipher code is decoded and compared with the first number stored in the memory 40. If the cipher code or bar code compare the ticket is authenticated. From the above it is clear that the first number is obtained from the memory 40 and that number is associated with the ticket. The second number is optically read from the ticket. Accordingly the first and second numbers are separately stored and separately obtained in separate steps contrary to Appellant's argument and the rejection should be sustained.

Alternatively Halperin does disclose or teach "obtaining by radio means a first number from an RFID tag associated with the item or item packaging as claimed (see fig. 1 of Halperin). Substituting the asymmetric key read from the portable memory with the first number obtained by radio means from the RFID tag of Halperin should result in the claimed invention. Accordingly it is Examiner's position that the claimed invention is not patentable over the references of record.

With respect to **claim 6**, Appellant argues that the arguments presented with respect to claims 1 and 11 apply with equal force here. That Appellant recites two separate, independent steps to affix the first and second numbers to the product and to affix a third number to the product.

In response Examiner respectfully disagrees and submits that Kay in combination with Halperin does teach or suggest the limitations of claim 6 as shown in the rejection. Examiner agrees that Kay does not teach and third number recitation but

these numbers are not used in any way different from the first and second numbers as recited in claims 1.

With respect to **claim 21**, Appellant argues that the arguments presented with respect to claims 1 and 11 apply with equal force here. That the claim limitations here are similar to the claim limitations of independent claim 1

In response Examiner respectfully disagrees and submits that Kay in combination with Halperin does teach or suggest the limitations of claim 21 as shown in the rejection. Examiner agrees that first, second and third number recitation but these numbers are not used in any way different from the first and second numbers recited in claims 1. Accordingly the rejection should be sustained.

With respect to **claims 26 and 29-30**, Applicant argues that the argument presented with respect to the independent claims apply here with equal force.

In response Examiner respectfully disagrees and submits that Kay in combination with Halperin and further in view of coopersmith does teach or suggest the limitations of these claims as shown in the rejection.

**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the Examiner in the Related Appeals and Interferences section of this Examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/CHARLES C AGWUMEZIE/  
Primary Examiner, Art Unit 3685  
September 21, 2011

Conferees:

/CALVIN L HEWITT II/  
Supervisory Patent Examiner, Art Unit 3685

Andrew J. Fischer /A.J.F./  
Supervisory Patent Examiner, Art Unit 3621